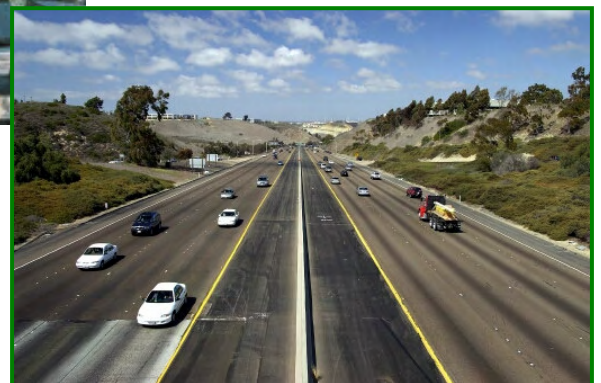




Corridors of the Future – A Roadmap to Mobility
A Joint Application from California, Oregon, and Washington



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Corridors of the Future
Interstate 5
A Roadmap for Mobility



Addendum July 13, 2007

A Financial Roadmap for the Future

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Roadmap to the Future

Washington State Road Map to the Future: Implementation and Finance Plan

1. The Columbia River Crossing Project

Preliminary Cost Estimates

Preliminary capital costs are currently being developed for each of these alternatives through WSDOT's Cost Estimate Validation Process/Cost Risk Assessment (CEVP/CRA) process. The initial phase of the project may cost in the \$3 - \$4 billion range in inflated (year-of-expenditure) dollars; however, the final cost will be highly dependent on the type and design of the bridge selected for construction through the environmental impact process, and the number and level of interchange improvements incorporated in the project.

Current Funding:

The Columbia River Crossing Project currently has \$67 million in dedicated funds from WSDOT, in addition to matching funds from Oregon. These funds are dedicated for preliminary engineering. Additional funds necessary for construction may be requested in the 2009 revenue package proposal.

Potential Funding Sources and Financing Mechanisms

Preliminary funding concepts to be evaluated in the DEIS include:

- Tolling: While tolling issues will be resolved through the EIS process, the alternatives incorporate tolling for the I-5 Bridge. The preliminary toll options include time-of-day variable pricing and 100 percent use of electronic toll collection (ETC). Tolling the bridge must be specifically authorized by the legislature. Collections from non-transponder vehicles would be accomplished through license plate recognition, which would carry with it a higher toll rate to offset the higher collection costs. Net toll revenues after facility operations and maintenance costs and toll operations costs would be bonded to provide capital funds for the project.

- **FTA New Start/Small Start Funds:** Federal Transit Administration “New Start” funds (Section 5309 funds) may be requested for the high-capacity transit component of CRC Project. Project development will proceed in compliance with FTA New Start rules and guidance in order to retain the CRC Project’s eligibility for such discretionary funds.
- **Toll Credits:** The finance plan may use “toll credits” to meet local match requirements for the transit funds.
- **Federal Transportation Apportionment Funds:** Federal formula funds apportioned to Washington and Oregon may be used to pay a portion of the project capital cost. These funds may be used on a cash basis, or advanced through such mechanisms as GARVEE bonds.
- **Federal Highway Discretionary Funds:** WSDOT and ODOT may pursue discretionary transportation funds and special purpose transportation funds to fund a portion of construction costs.
- **TIFIA:** In particular if tolling is employed in the finance plan, the use of a TIFIA credit enhancement or loan will be considered to address the lack of toll revenues during construction and ramp-up, and perhaps to enhance junior debt backed by coverage revenues on the senior debt.
- **State Funds:** A portion of the funding plan may come from the Oregon and/or Washington Highway Trust Fund. This may take the form of an on-going cash contribution, or proceeds from bonds.
- **Local Funds:** There are a variety of funding sources authorized for the Cities of Portland and Vancouver, TriMet (the transit district in Oregon), C-TRAN (the transit district in Washington), and Metro (the regional government in Oregon) that may be used to fund a portion of construction costs, including such sources as voter-approved general obligation bonds, payroll tax revenues, business, excise and sales taxes, system development charges, and others.
- **Private Funds:** The finance plan may consider using tax increment (urban renewal funds) and local improvement district assessments.

2. Complete Missing Links on the North-South Freight Corridor

There are missing links and failing structures on the I-5 north-south freight corridor and companies have no practical alternative to this corridor. These deficiencies include failing structures, and capacity and operational efficiencies.

- Highway 405 – Highway 167: Congestion and missing link between Highway 167 and I-5.
- Highway 99 - Alaskan Way Viaduct – Highway 509: Congestion, failing structure and missing link. Completing Highway 509 would link I-5 and the Viaduct and create a third major truck route into the Seattle metro region.

I-405: Currently I-405 has \$1.7 billion in funded mobility improvements resulting from the Nickel Package and Transportation Partnership Act (Washington State transportation revenue packages). Additional funds will be requested as part of the 2009 revenue package proposal.

Highway 167: Currently, Highway 167 has 1 segment of the corridor fully funded, the 2nd segment has funds for Right-of-Way and design. Some portions of the project will be financed through tolling as Highway 167 is Washington State's pilot project for High Occupancy Toll Lanes.

Highway 99, including the Alaskan Way Viaduct:

Currently Highway 99 has \$2.4 billion in funding, enough to replace the existing structure. \$274 million of these funds are dedicated federal dollars. The majority of the funding is a result of the Washington State Nickel Package and Transportation Partnership Act, and approximately \$1.5 million is local funds. Construction has currently begun on the at grade portion of the highway, on either side of the viaduct. Alternatives selection for the viaduct is still pending.

Highway 509: Currently \$171 million is dedicated to Highway 509 for preliminary engineering, Right-of-Way, and advance mitigation. Additional funds will be requested in the 2009 revenue package proposal for right-of-way and construction costs.

Washington State is also using Low Cost, High Benefit Operational Improvements to help. We must also better manage highways and highway system operations to successfully fight congestion.

- Incident response

- Re-time and synchronize traffic signals
- Operate ramp meters to smooth traffic merges
- More progress on traveler information
- For freight customers, real-time and reliable information is key
- Highway construction and maintenance planning
- Truck design standards to improve safety and efficiency of system

And, Active Traffic Management

- WSDOT is considering European techniques to dynamically manage recurrent and non-recurrent congestion.
- These strategies include speed harmonization, temporary shoulder use, junction control, and dynamic signing and re-routing.
- The purpose of Active Traffic Management is increased trip reliability.

The Future: Value Pricing and Demand Management

- Capital investments and smart operations will help address congestion but will not solve it.
- We must use existing highway capacity better by making traffic flow smoother, faster, and more reliable.
- We must increase the efficiency of the facilities we already have and the new facilities that need to be built
- Variable pricing is a powerful potential tool to achieve demand management – something that is needed for every facet of the transportation crisis facing freight and everyone else.
- WSDOT is examining several future projects for system management strategies.
- The U.S. Department of Transportation, in its national strategy to reduce congestion, is working with regions to support these strategies.
- WSDOT, King County and PSRC are semi-finalists for possible federal Urban Partnership Agreement: Tolls, Transit, Technology and Telecommuting.

3. Canadian Border Crossings

\$27 million in funding for a portion of the SR 539 corridor widening project was funded by the Washington State Legislature in 2003. SR 539 begins at I-5 and serves as a border crossing into Canada. Additional funds will be requested in the 2009 revenue package proposal.

4. Mobility Improvements

Washington State Department of Transportation's approach to addressing congestion is targeted at maximizing and increasing throughput within the existing transportation system through improved operations and management of the transportation system.

Recently the Washington State Transportation Commission completed a tolling study for the state of Washington to examine locations and applications of tolling and congestion pricing. SR 167 is a pilot project for High Occupancy Tolls, a congestion pricing method, and I-405 is a potential candidate for the same application. The Governor of the State of Washington, as well as the legislature, will be developing statewide tolling policy in the 2008 legislative session.

The Highway System Plan is based on a tiered system of improvements: Tier 1 improvements are lower-cost and most generally operational; and Tier 2 are moderate in cost and relieve bottlenecks and chokepoints through construction or operational improvements, while Tier 3 are much more expensive capital improvements. Some of the projects of the Highway System Plan are currently funded, however the majority are unfunded and financing will be sought out from various sources including the 2009 revenue package proposal.

5. Addressing Congestion on Railroads in the I-5 Corridor

As a condition of the deregulation of the railroad industry in 1980, federal law requires that freight railroads share the use of their lines with intercity passenger rail providers and give passenger trains priority over freight trains.

When the Amtrak *Cascades* program was initiated, the freight railroads were willing to sell slots to the state, especially in return for physical improvements to the rail lines that would benefit both the passenger and freight movement.

WSDOT's latest long-range plan for Amtrak *Cascades* service includes service goals, ridership and revenue forecasts, equipment requirements, updated operating and capital construction plans, and cost estimates for each service increment that could be added in the years ahead if funding and market demand exist and should be considered an unconstrained visionary plan. The total cost for all the construction and equipment necessary to achieve WSDOT's service goals for intercity passenger rail service between Portland, Seattle, and Vancouver, BC is estimated to exceed \$6.5 billion dollars in 2006 dollars.

Amtrak Cascades ridership and revenues have been increasing, but on-time performance has been decreasing as a result of the conflict of higher speed passenger trains and slower speed and more frequent freight trains compete for a fixed amount of slot capacity on a given line. Considerable additional investment is needed to achieve the Cascades program's longer-term goals of more frequent service and higher ridership. The contractual agreement between Washington and BNSF provides a methodology to reach these goals consistent with long range plan development. However, constrained funding has limited opportunities to make investments as proposed. If rail system congestion continues to build and improvements are not made in a timely manner, on-time performance may deteriorate further, undermining potential ridership growth and reducing the cost effectiveness of the program. Limited funding, in the absence of a federal funding partnership for capital development, may cause the need to reexamine the future of the rail passenger program.

As mentioned above, freight demand and volumes across multiple sectors has identified constraints with the I-5 corridor rail infrastructure on both the BNSF and the UPRR. With freight and passenger rail service utilizing the same infrastructure decisions are made by the respective owners of that infrastructure on a real-time basis for operational efficiencies to maintain velocity of the traffic on those lines. While improvements have been identified through numerous studies up and down the corridor, it comes down the best use of capital by each carrier and the return on that investment in competition with other projects throughout their systems. Those in this corridor do not always have the highest ROI in a system wide competition. Identifying projects within Washington State with a cost/benefit methodology framework was recommended in the 2006 Washington Transportation Commission Rail Capacity Study. WSDOT has begun to move forward on developing that methodology with the framework identified. The Joint Transportation Committee is also involved in conducting a study on freight projects and will likely come up with additional recommendations. Funding of future freight improvements will have to leverage State funding for projects with those of all the stakeholders including the Rail Carrier, Shippers, State, and local municipalities. All of the benefited parties must have "skin in the game" to help prioritize projects as identified within the cost/benefit methodology. Additionally, projects which result in an increased national benefit will need to be assisted with Federal Funding.

Washington state law, RCW 47.79, relates to high-speed ground transportation, establishing a program to promote a high-quality, high-speed, and intercity rail system.

The statute was enacted based on legislative recognition that major intercity transportation corridors in Washington are becoming increasingly congested; that high-speed ground transportation offers a safer, more efficient, and environmentally responsible alternative to increasing highway capacity; and that high-speed ground transportation can complement existing air transportation systems, as well as regional growth management plans.

6. Washington's Commitment to Facility Pricing—SR 520 bridge example:

The authority or approvals needed to toll the SR 520 bridge, and when those approvals will be finalized. The legislature will need to authorize specific tolling on the SR 520 bridge. Washington State requires specific approval for tolling any bridge or highway. Two Revised Code of Washington sections address this issue:

RCW 47.031 Approval of Tolls

No toll may be imposed on new or existing highways or bridges without specific legislative authorization or upon a majority vote of the people within boundaries of the unit of government empowered to impose tolls. This section applies to chapter 47.56 RCW and to any tolls authorized under chapter 47.29 RCW, the transportation innovative partnership act of 2005.

RCW 47.56.075 Toll roads, facilities – Legislative authorization or regional or local sponsorship required

The department shall approve for construction only such toll roads as the legislature specifically authorizes or such toll facilities as are specifically sponsored by a regional transportation investment district, city, town, or county.

The public will vote in November, 2007 on a very large (\$16+ billion) "Roads and Transit" regional transportation investment plan sponsored by the 3 county Regional Transportation Investment District (RTID) and Sound Transit. The measure before voters proposes to fund roadway and light rail projects through a combination of taxes, fees, and tolls. The finance plan assumes toll revenues from SR 520 to augment proposed RTID and previously approved state funds to pay for replacing the bridge.

Even if the tax measure is not approved by voters in 2007, the legislature has already approved a finance plan relying on the use of tolls on SR 520. As noted in a June 28,

2007 letter from Governor Gregoire, and Legislative Transportation Committee Chairs Senator Mary Margaret Haugen and Representative Judy Clibborn to Secretary Peters regarding the Lake Washington Urban Partnership:

"In 2007 the legislature enacted and the Governor approved a broad finance plan for the SR 520 program that embraces a large reliance on tolls. At the time, details of tolling policy were left for future action so that other aspects of the project planning could be advanced, including work on tolling to be included in the Supplemental Draft Environmental Impact Statement for the project. ... In the meantime, our State Treasurer prepared a report on tolling prospects for the project that considered a broad range of scenarios to support the application of tolling in the program's finance structure.

The legislature has already announced that it will take up tolling policy for the purpose of the SR 520 project and perhaps more broadly in the 2008 legislative session. We expect over the next few months that our legislative and executive branches will collaborate on the preparation of that proposal".

This letter further demonstrates that tolling authorization is primed for action in the short 2008 legislative session (January-March). While the broad question of tolling SR 520 has been addressed, the specific details (such as when tolls will be instituted, where the toll collection points will be placed, discounted or free access by transit/HOVs, etc.) will be addressed this coming legislative session.

We believe the Lake Washington Urban Partnership provides an integrated application of the 4Ts, many parts of which can be immediately implemented to help relieve congestion and set the stage for full application of all the Partnership's components. We urge USDOT to fund the full application. However, we suggest that USDOT, if inclined to conditional approvals for Urban Partnership Agreements, consider the following:

- Tolling SR 520 will be addressed by the legislature as early as the first quarter of 2008.
- The transit improvements proposed in the Lake Washington Urban Partnership can be implemented immediately to support improved travel, congestion management, construction mitigation and tolling in the corridor. Approval now will allow manufacturing orders to be placed for the new buses needed for enhanced service.

- The ITS/ATM improvements can similarly move forward and will also aid in reducing congestion before and after new bridge construction. They are needed to make tolled segments work better with non-tolled highway segments, and they will demonstrate to the public how technology can improve roadway and transit productivity and support value pricing.
- The first phases of the Lake Washington Urban Partnership work plan will produce the analyses needed to help inform the tolling policy decisions, and the preliminary design and public outreach needed to propel timely implementation once the legislature has made the tolling policy call.
- Performing the preliminary project development activities for the tolling components “at risk” for several months will reduce the lead time eventually needed to procure and bring tolling software and back-room applications on-line subsequent to legislative approval.
- Therefore, if USDOT wants to condition approval of the Lake Washington Urban Partnership, it should consider approving the Urban Partnership Agreement with an initial award of \$41M for the transit components and approximately \$56M for the ITS/ATM and initial tolling components (program design, project development and public outreach). The funding for actual tolling-related procurement, installation and operations could be conditioned on state legislative approval. This would clearly demonstrate USDOT’s support for the Lake Washington Urban Partnership’s comprehensive systems approach in applying the 4Ts to tackling congestion in an economically important metropolitan area. At the same time, such an action would reflect the uncertainties of the legislative process and the realities of when funds will be available from various grant programs and when they will be needed for project implementation.

In addition to the SR 167 and I-405 HOT lane projects, we see the Lake Washington Urban Partnership proposal as another important step in building the knowledge base to apply pricing in congested corridors with HOV lanes

The park and ride improvements contemplated in our proposal will also help accommodate the mode shift to bus rapid transit by providing convenient locations for new transit patrons to access the SR-520 corridor

The composite of these improvements will provide the customer with a transit trip comparable in many respects to bus rapid transit (BRT). Along with currently unused capacity on existing buses, the proposed service increases are expected to be

adequate to meet projected demand. Actual demand may differ from modeled demand; as such, once congestion pricing is implemented, Metro, Sound Transit and WSDOT will monitor ridership to ensure effective utilization of new transit service across the bridge and adjust if necessary to ensure the actual demand will be served adequately.

Detailed breakdown of the costs associated specifically with implementing SR 520 pricing, especially the ITS program elements.

The costs to implement the entire proposal and its subcomponents associated with implementing ITS to support pricing on SR 520 are detailed in the following table (all costs are in \$1000s). A more detailed breakdown of these costs is provided in the attached spreadsheets. The pricing elements include design, engineering, roadway infrastructure modifications, toll system software development, back office (account management) system costs, communication infrastructure (fiber and electronics), public outreach, and operations (work programs Tasks 1 – 7).

Detail Cost Breakdowns of the Proposed Work Program Elements (in \$1000s)

Components	Work Elements										
	Scoping & Analysis	Project Development	Project Design	Public Outreach	Procurement	Civil Toll	Civil ATM	Pricing Systems	Back Office	Operations	Total
Entire Proposal (include optional I-90 tolling)	\$2,106	\$2,808	\$3,952	\$7,098	\$364	\$26,938	\$39,646	\$16,541	\$7,889	\$10,812	\$118,200
SR 520 Tolling & ITS/ATM	\$1,895	\$2,387	\$3,359	\$6,033	\$328	\$11,931	\$39,646	\$14,060	\$6,706	\$8,109	\$94,500
ITS/ATM only	\$105	\$842	\$1,186	-	\$127	\$0	\$39,646	\$2,481	-	-	\$44,400

The pricing of associated ITS elements includes traffic management (comprised of CCTV, HAR, VMS, and incident detection), hazardous materials notification, and traveler information.

Active traffic management project components that will be implemented to support the pricing on SR 520.

The active traffic management components that will be implemented to support pricing on SR 520 (as well as I-90) include speed harmonization, lane control, queue warning, and junction control.

Oregon State: Road Map to the Future: Innovations in Finance

Financing and Implementation Plan

The key strategic projects that would provide additional capacity on Interstate 5 are currently unfunded, except for preliminary development work on some projects. ODOT recognizes that the state's current funding streams are not adequate to complete all of these projects in the near future. ODOT's focus in recent years has been on preserving the existing system. The vast majority of resources, from state and federal funds as well as supplementary funding packages provided by the Oregon Legislature, have been focused on this goal, leaving very few resources available for expanding the system. In fact, the department's discretionary modernization program, which is distributed to ODOT regional highway offices to invest in projects that improve the highway system, provides only \$48 million a year. Consequently, this program offers only minimal support to major projects, and ODOT must turn to other funding and financing strategies to complete significant projects that expand capacity on the state's highways. A number of funding strategies will help ODOT make progress on delivering these critical projects.

Tolling: Given the limited revenues available to expand Oregon's highway system, ODOT will have to rely more heavily on tolling to complete major capacity expansion projects than it has in the past several decades, when tolling has been rare in Oregon. ODOT is currently exploring a public-private partnership project that involves tolling on I-205 as well as traditional public sector tolling on the Columbia River Crossing. Because of its significant cost, tolling the Columbia River Crossing project will likely be necessary to finance construction. Polling data has indicated that the public will support tolling this project despite a lack of recent experience with tolling, and ODOT recently secured approval from the Legislature for a modernization of the state's tolling statutes (SB 1022) that will facilitate this project and allow for use of electronic tolling. ODOT will explore tolling on many other major capacity expansion projects, particularly given direction from the Legislature to examine tolling as a way to help finance new capacity on highways. However, tolling may not be feasible to finance some of the improvements needed on the corridor, such as truck climbing lanes and ITS projects. Moreover, tolling all lanes on the freeway, as might be required to secure adequate financing for many of the larger projects, may not be acceptable to the public at this time. As ODOT moves forward on reintroducing tolling in Oregon, the agency will be exploring these issues of public acceptability and working to determine the conditions under which the public would accept tolling.

Public-private partnerships: The Oregon Innovative Partnerships Program provides ODOT broad authority to explore and implement projects using innovative alternative financing and delivery options. Oregon is currently exploring using public-private partnerships on the tolling/concession model to finance important projects. However, other public-private partnership models are

available and may be used to develop and implement projects, and Oregon is planning to explore additional opportunities. For example, ODOT hopes to explore a public-private partnership for the Portland Rail Triangle that could involve use of public funding to leverage private sector investment.

Additional state funding: ODOT has made effective use of the OTIA I, II, and III funding packages provided by the Oregon Legislature. These three packages have provided significant infusions of funding that have allowed the state to undertake capacity expansion projects that would not otherwise be feasible. Future funding packages from the Legislature will be necessary to complete the major projects necessary to meet the challenges of growth on Interstate 5.

Phasing: Regardless of whether ODOT is limited to currently available funds or is able to secure additional funding and use tolling, the agency will likely make extensive use of phasing capacity expansion projects. Phasing major projects over a number of STIP cycles allows the state to complete portions as funding becomes available. This strategy has been successful in the past. ODOT has made slow but steady progress on widening Interstate 5 to six lanes to the Salem area and will likely continue this incremental expansion approach as it continues widening to the south. In order to complete widening of the Salem to Albany stretch of I-5, a phased approach will almost certainly be necessary, and the department is launching an EIS on the first phase of this project in the near future. A phased approach may be successful in building truck climbing lanes and deploying new ITS devices.

California State Roadmap to the Future: Innovations in Project Delivery and Finance

There is increasing interest and momentum in regional and legislative discussions to allow increased tolling and expand public-private partnership authority. Below are immediate examples of these efforts.

Regional

- Currently the San Diego Association of Governments is planning a 26 mile managed lane facility in the north coastal section of I-5. Construction contract award dates are from late 2007 through 2010. The facility will be managed in a similar fashion to the managed lanes on the I-15 through the region.
- The City of Los Angeles has requested a feasibility study be initiated in the 2007-08 fiscal year to assess the potential of converting the existing high occupancy vehicle lane system to high occupancy toll lanes and construct new managed lanes. The study will cover then entire Los Angeles County area.

Statewide

- The Department of Transportation Division of Traffic Operations is under-taking a statewide feasibility study in the 2007-08 fiscal year to assess the longer term potential of conversion of all high-occupancy lanes to high occupancy toll lanes.
- Central Valley Counties have expressed interest in using tolls to add capacity to the I-5 for construction and operation of truck only toll lanes. An application for the federal value pricing program was submitted by the Fresno regional transportation planning agency, however it was not successful.

Legislative

- Existing law authorizes allows regional transportation planning agencies, in cooperation with the Department of Transportation, to apply to the California Transportation Commission for up to four value pricing projects (corridors) statewide. Upon approval the projects then must go to the State Legislature for approval by statute. The same provisions apply for entering into up to four comprehensive development lease agreements with public and private entities or consortia for the construction of transportation projects primarily designed to improve goods movement.

Currently the Legislature is considering significant modifications to existing law that would remove the four project limitation and the requirement for the Legislature to approve each project by statute. (Senate Bill 61)

Strategic Growth Initiative

- A critical component of the Governor's Strategic Growth Plan is to expand opportunities for public-private partnerships and design-build. California is preparing now for a series of statewide workshops regarding innovative financing options to complement traditional financing tools. The Department of Transportation with the Center for Urban Infrastructure (University of California, Institute of Transportation Studies, and in collaboration with the Keston Institute (University of Southern California and the Mineta Transportation Institute (California State University, San Jose) are managing this effort.

The conference will involve regional partners, private sector industry, key legislators and other stakeholders. The purpose of the workshop is essentially an interactive dialogue with stakeholders to develop an "action plan" for how California can implement public-private partnerships as a component of a long-term finance framework. Ultimately the group will develop recommendations for legislative, administrative and institutional actions needed to bring about the necessary actions to achieve mutual goals.